

Appl. No. 10/607,523
Amdt. dated 3/23/06
Reply to Office action of January 18, 2006

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Applicants appreciatively acknowledge the Examiner's confirmation of receipt of Applicants' claim for priority under 35 U.S.C. § 119(a)-(d) and certified copy of German Patent Application 102 28 633.7, filed June 26, 2002.

Claims 1, 2, 4, 5 and 9-11 remain in the application and are subject to examination. Claims 4 and 5 have been amended.

In "Claim Rejections - 35 USC § 112", item 2 on page 2 of the above-identified Office Action, claims 1, 2, 4, 5 and 9-11 have been rejected as failing to comply with the written description requirement under 35 U.S.C. § 112, first paragraph.

More specifically, the Examiner states that the Specification does not provide support for:

- 1) a device having a sealing layer between an element and an I/O shield; and
- 2) the sealing layer extending to a border of the housing aperture.

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The original disclosure does indeed provide support for both features 1) and 2), as will be described below.

Regarding feature 1), it can be clearly seen in Fig. 3 of the instant application that the sealing layer 2 is disposed between the element 6 and the I/O shield 1. It is true that the sealing layer 2 does not separate the element 6 from the I/O shield 1. However, the sealing layer 2 is between the element 6 and the I/O shield 1. For example, if a person is standing in the corner of a room where two walls meet, he or she is between the walls, although he or she is not separating the walls from each other. The Examiner's overly narrow interpretation of the word "between" is not supported by the common meaning of the word.

Regarding feature 2), there is no doubt that the sealing layer 2 extends to the border of the aperture 7 in the housing 8. The sealing layer 2 clearly touches the wall surfaces 9 in Fig. 3.

In "Claim Rejections - 35 USC § 112", item 4 on page 2 of the above-identified Office Action, claims 4 and 5 have been rejected as being indefinite under 35 U.S.C. § 112, second paragraph.

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More specifically, the Examiner states that there is no antecedent basis for "the electrical contact" in claims 4 and 5. Antecedent basis has been added by reciting "an electrical contact."

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, first and second paragraphs. The above-noted changes to the claims are provided solely for clarification or cosmetic reasons. The changes are neither provided for overcoming the prior art nor do they narrow the scope of the claim for any reason related to the statutory requirements for a patent.

In "Drawings", item 5 on pages 2-3 of the Office Action, the drawings have been objected to as not showing every feature of the invention specified in the claims.

More specifically, the Examiner has stated that a sealing layer between an element and an I/O shield and the sealing layer extending to a border of the housing aperture, must be shown or canceled from the claims. As explained above, both of these features are illustrated in the drawings.

Therefore, no changes have been made.

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In "Claim Rejections - 35 USC § 102", item 7 on pages 3-4 of the Office Action, claims 1, 2, 4, 5 and 9-11 have been rejected as being fully anticipated by U.S. Patent No. 6,119,305 to Loveall et al. (hereinafter Loveall) under 35 U.S.C. § 102(b).

Furthermore, although no claims have been rejected over U.S. Patent No. 3,371,147 to Daubenberger et al. (hereinafter Daubenberger), the Examiner has stated in item 8 on page 4 of the Office Action that Daubenberger could be used to reject at least claim 1.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and, therefore, the claims have not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. Claim 1 calls for, *inter alia*, a device for protecting against electrostatic discharge and electromagnetic influences on electronic components, comprising:

a housing for housing the electronic components;
an I/O shield covering a housing aperture;

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an element extending through an aperture in said I/O shield; and

a sealing layer disposed between said element and said I/O shield for sealing said I/O shield aperture;

said sealing layer extending to a border of said housing aperture;

said sealing layer being formed of electrically conductive material.

The Loveall reference discloses sealing elements in which a workpiece, such as tubing or electrical cables 20, penetrate a panel or bulkhead 22 and a sealing element or grommet 24 seals between the panel 22 and workpiece 20. The grommet of Loveall is made of an elastomeric material. The grommet includes an electrically conductive material to ensure electrical contact with the workpiece extending through an aperture of the panel or housing. The electrically conductive material is a metal plate that can take any number of forms and configurations, but preferably ensures electrical contact with the workpiece and the panel or housing. The sealing of the aperture of the panel or housing is ensured by the elastomeric material.

Loveall does not disclose a sealing layer being formed of electrically conductive material as recited in claim 1 of the instant application. In view of that fact, the device disclosed by Loveall is an excellent seal for gases or

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fluids, but not for avoiding electromagnetic influences on electronic components or circuits.

The Daubenberger reference discloses a high frequency shielding and sealing gasket having a cabinet 10 with a front panel 11. A connector 12 is mounted on the panel 11 and connected to a sleeve 13 on a cable 14. A gasket 15 is disposed between the connector 12 and the panel 11. The sealing gasket has a rubber layer on both sides, top and bottom, of the seal. A layer with resilient conductive material is disposed in an intermediate position between the top and bottom rubber layers. The seal is used for providing an improved shielding of radiofrequency signals.

Daubenberger does not disclose an I/O shield as recited in claim 1 of the instant application. As described in lines 2-9 on page 2 of the Specification of the instant application, the I/O shield is formed of conductive metal plates. An electrical terminal or operating element is then let outside through the I/O shield and is shielded against electrostatic discharge or electromagnetic fields by an electrically conductive seal.

It is an object of the present invention to provide an improved device for protection against electrostatic

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discharge and electromagnetic influences in electronic components. Clock rates of electronic circuits, for example computers, are increasing and the vulnerability of electronic components or circuits to electrical discharges is increasing too. Therefore, it has become more and more important to protect those electronic devices against electrostatic discharge and electromagnetic fields. A critical part of a housing is the I/O shield. Neither Loveall nor Daubenberger solve the problem of protecting those electrical or electronic devices in a housing with an I/O shield, since neither of them provide an I/O shield. If there is another aperture in a housing as in Loveall or Daubenberger, a person skilled in the art would provide another seal. There is no hint to use only one seal for an aperture in an I/O shield and a connection between the I/O shield and a housing. In the configuration according to Loveall or Daubenberger, only one position is to be sealed. Thus, claim 1 is not anticipated by Loveall or Daubenberger.

The advantage of the present invention is that one sealing layer which is formed of electrically conductive material seals the I/O shield aperture and the aperture in a housing which is covered by the I/O shield. Therefore, the overall transition resistance between the element and the housing is decreased. Since the number of connections where transition

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resistances appear is decreased, the only remaining transition resistances are between the element and the sealing layer and between the sealing layer and the housing. Prior art configurations in the past had four connection points from the element to the housing. A low transition resistance is of great importance for a good shielding effect. Referring to the object of the present invention, neither Loveall nor Daubenberger give any hint to a person skilled in the art to solve the problem of improved protection against electromagnetic influence or electrostatic discharge in a housing with an I/O shield. Therefore, claim 1 is not obvious over the prior art of record.

Clearly, neither Loveall nor Daubenberger teach or suggest an I/O shield and a sealing layer being formed of electrically conductive material, as recited in claim 1 of the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1.

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In view of the foregoing, reconsideration and allowance of claims 1, 2, 4, 5 and 9-11 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

If an extension of time is required, petition for extension is herewith made. Any extension fee associated therewith should be charged to the Deposit Account of Lerner Greenberg, Sterner LLP, No. 12-1099.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Sterner LLP, No. 12-1099.

Respectfully submitted,



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LAG/am

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